Amendments to Claims

	1–6. (canceled)
1	7. (new): A method of manufacturing a semiconductor circuit on a substrate, comprising the steps of:
2	providing first and second substrate handling robots;
3	coupling a first process chamber to the first robot so that the first robot can transfer a substrate
4	into and out of the first process chamber, wherein the first process chamber is a deposition chamber or
5	a plasma chamber, and wherein the first process chamber is not coupled to the second robot;
6	coupling a second process chamber to the second robot so that the second robot can transfer a
7	substrate into and out of the second process chamber, wherein the second process chamber is a
8	deposition chamber or a plasma chamber, and wherein the second process chamber is not coupled to
9	the first robot;
10	coupling one or more pass-through chambers to both the first robot and the second robot so
11	that both the first robot and the second robot can transfer a substrate into and out of each of the pass-
12	through chambers, wherein said one or more pass-through chambers include a first pass-through
13	chamber; and
14	subsequently performing the sequential steps of:
15	the first robot transferring a first substrate into the first pass-through chamber;
16	heating said first substrate within the first pass-through chamber; and
17	the second robot removing said first substrate from the first pass-through chamber.
1	8. (new): A method according to claim 7, further comprising the subsequent step of:
2	the second robot transferring said first substrate to the second process chamber.
1	9. (new): A method according to claim 8, further comprising the subsequent sequential steps of:
2	the second robot removing said first substrate from the second process chamber;
3	the second robot transferring said first substrate into one of the pass-through chambers;

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the first robot removing said first substrate from said one pass-through chamber; and

the first robot transferring said first substrate to the first process chamber.

1 2	10. (new): A method according to claim 9, wherein said one pass-through chamber is the first pass-through chamber.
1	11. (new): A method according to claim 9, further comprising the steps of:
2	after the step of the second robot transferring said first substrate to the second process
3	chamber, depositing tantalum or tantalum nitride on the substrate within the second process chamber;
4	and
5	after the step of the first robot transferring said first substrate to the first process chamber,
6	depositing copper on the substrate within the first process chamber.
1	12. (new): A method according to claim 9, further comprising the steps of:
2	after the step of the second robot transferring said first substrate to the second process
3	chamber, removing native oxide from the surface of the substrate within the second process chamber;
4	and
5	after the step of the first robot transferring said first substrate to the first process chamber,
6	depositing copper on the substrate within the first process chamber.
1	13. (new): A method according to claim 12, further comprising the steps of:
2	coupling a third process chamber to the second robot so that the second robot can transfer a
3	substrate into and out of the third process chamber, wherein the third process chamber is not coupled
4	to the first robot;
5	after the step of removing native oxide and before the step of the second robot transferring the
6	first substrate into one of the pass-through chambers, performing the sequential steps of:
7	the second robot removing the first substrate from the second process chamber;
8	the second robot transferring the first substrate into the third process chamber; and
9	within the third process chamber, depositing tantalum or tantalum nitride on the first substrate
1	14. (new): A method according to claim 7, further comprising the steps of:
2	coupling a loadlock chamber to one of said first and second robots so that said one robot can
3	transfer a substrate into and out of the loadlock chamber, wherein the loadlock chamber is not coupled

4	to the other one of said first and second robots; and
5	before the step of the first robot transferring said first substrate into the first pass-through
6	chamber, said one robot removing said first substrate from the loadlock chamber.
1	15. (new): A method according to claim 7, further comprising the steps of:
2	coupling a loadlock chamber to one of said first and second robots so that said one robot can
3	transfer a substrate into and out of the loadlock chamber, wherein the loadlock chamber is not coupled
4	to the other one of said first and second robots; and
5	after the step of the second robot removing said first substrate from the first pass-through
6	chamber, said one robot transferring said first substrate into the loadlock chamber.
1	16. (new): A method according to claim 7, further comprising the steps of:
2	coupling a loadlock chamber to the first robot so that the first robot can transfer a substrate into
3	and out of the loadlock chamber, wherein the loadlock chamber is not coupled to the second robot; and
4	before the step of the first robot transferring said first substrate into the first pass-through
.5	chamber, the first robot removing said first substrate from the loadlock chamber.
1	17. (new): A method according to claim 8, further comprising the steps of:
2	coupling a loadlock chamber to the first robot so that the first robot can transfer a substrate into
3	and out of the loadlock chamber, wherein the loadlock chamber is not coupled to the second robot; and
4	after the step of the second robot transferring said first substrate to the second process
5	chamber, the subsequent steps of:
6	the second robot transferring said first substrate into one of the pass-through chambers;
7	the first robot removing said first substrate from said one pass-through chamber; and
8	the first robot transferring said first substrate into the loadlock chamber.
1	18. (new): A method according to claim 7, further comprising the step of:
2	providing a resistive heater within the pass-through chamber;
3	wherein the heating step comprises the step of said resistive heater heating said first substrate
4	within the pass-through chamber.

	directing infrared radiation so as to heat said first substrate within the pass-through chamber.
20. (ı	new): A method of depositing a copper layer on a substrate, comprising the steps of:
	providing first and second substrate handling robots;
	coupling a first process chamber to the first robot so that the first robot can transfer a substrate
into a	and out of the first process chamber, wherein the first process chamber is a deposition chamber o
a pla	sma chamber, and wherein the first process chamber is not coupled to the second robot;
	coupling a second process chamber to the second robot so that the second robot can transfer a
subst	rate into and out of the second process chamber, wherein the second process chamber is a
depo	sition chamber or a plasma chamber, and wherein the second process chamber is not coupled to
the fi	rst robot;
	coupling one or more pass-through chambers to both the first robot and the second robot so
that b	ooth the first robot and the second robot can transfer a substrate into and out of each of the pass-
throu	gh chambers, wherein said one or more pass-through chambers include a first pass-through
cham	ber; and
	subsequently performing the sequential steps of:
	the first robot transferring a first substrate into the first pass-through chamber;
	heating said first substrate within the first pass-through chamber;
	the second robot removing said first substrate from the first pass-through chamber;
	the second robot transferring said first substrate to the second process chamber;
	within the second process chamber, depositing tantalum or tantalum nitride on the substrate;
	the second robot transferring said first substrate into one of the pass-through chambers;
	the first robot removing said first substrate from said one pass-through chamber;
	the first robot transferring said first substrate into the first process chamber; and
	within the first process chamber, depositing copper on the substrate.
21. (1	new): A method of depositing a copper layer on a substrate, comprising the steps of:
	providing first and second substrate handling robots;
	coupling a first process chamber to the first robot so that the first robot can transfer a substrate

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4	into and out of the first process chamber, wherein the first process chamber is a deposition chamber or
5	a plasma chamber, and wherein the first process chamber is not coupled to the second robot;
6	coupling a second process chamber to the second robot so that the second robot can transfer a
7	substrate into and out of the second process chamber, wherein the second process chamber is a
8	deposition chamber or a plasma chamber, and wherein the second process chamber is not coupled to
9	the first robot;
10	coupling one or more pass-through chambers to both the first robot and the second robot so
11	that both the first robot and the second robot can transfer a substrate into and out of each of the pass-
12	through chambers, wherein said one or more pass-through chambers include a first pass-through
13	chamber; and
14	subsequently performing the sequential steps of:
15	the first robot transferring a first substrate into the first pass-through chamber;
16	heating said first substrate within the first pass-through chamber;
17	the second robot removing said first substrate from the first pass-through chamber;
18	the second robot transferring said first substrate to the second process chamber;
19	within the second process chamber, removing native oxide from the surface of the substrate;
20	the second robot transferring said first substrate into one of the pass-through chambers;
21	the first robot removing said first substrate from said one pass-through chamber;
22	the first robot transferring said first substrate into the first process chamber; and
23	within the first process chamber, depositing copper on the substrate.
1	22. (new): A method according to claim 21, further comprising the steps of:
2	coupling a third process chamber to the second robot so that the second robot can transfer a
3	substrate into and out of the third process chamber, wherein the third process chamber is not coupled
4	to the first robot; and
5	after the step of removing native oxide and before the step of the second robot transferring the
6	first substrate into one of the pass-through chambers, performing the sequential steps of:
7	the second robot removing the first substrate from the second process chamber;
8	the second robot transferring the first substrate into the third process chamber; and

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within the third process chamber, depositing tantalum or tantalum nitride on the first substrate.